REMARKS

Claims 53 - 65 and 164 - 176 have been previously withdrawn. Claims 1 - 52 and 66 - 163 remain pending in the present application. In view of the following remarks, it is respectfully submitted that these claims are in condition for allowance.

Claims 1 - 22, 24 - 48, 50 - 52, 66 - 82, 84 - 113, 115 - 139, 141 - 160, 162 and 163 stand rejected under 35 U.S.C. § 102(e) as anticipated by U.S. Patent No. 5,954,722 to Bono ("Bono"). *1/23/09 Office Action*, p. 2.

Claim 1 recites a bone plate having a longitudinal axis and comprising "an upper surface" and "a lower surface" along with "*at least one first type of hole, the first type of hole being elongated and extending through the upper and lower surfaces, and having a central axis and a longitudinal axis, wherein the first type of hole includes a threaded portion and a non-threaded portion, and the threaded portion extends through an angle of between about 190° and about 280° with respect to the central axis*" and "at least a second type of hole extending through the upper and lower surfaces, the second type of hole including an internal thread configured and dimensioned for engaging a threaded portion of a screw head."

In contrast, Bono discloses a locking plate including a hole for receiving a bushing such that the bushing does not extend through an upper and lower surface of the plate. Neither the bushing nor the hole are elongated to include both a threaded portion that extends through an angle of between 190° and 280° and a non-threaded portion. Specifically, Bono describes a locking plate 12 including a proximal surface 22, a distal surface 24 and a plurality of spherically shaped holes 14, which are adapted to receive a bushing 16. *Bono*, col. 3, l. 65 - col. 4, l. 6. The bushing 16 is donut-shaped and is sized to press fit into the hole 14 to engage an inner wall 26 of the hole 14. *Id.* at col. 4, ll. 24 - 26 and col. 5, ll. 6 - 8. An exterior surface 28 of the bushing is sized to permit angled rotation of bushing 16 within hole 14. *Id.* at col. 5, ll. 8 - 11.

The Examiner asserts that the bushing 16 is comparable to the first type of hole recited in claim 1. *1/23/098 Office Action*, p. 2. It is respectfully submitted, however, that the bushing 16 is specifically described as donut-shaped and does not extend *through* the proximal surface 22 and the distal surface 24 of the plate 12. A donut-shape would be understood by one of ordinary skill as being circular - i.e., not elongated. *See* Figs. 2 and 4. Additionally, as shown in Figs. 5 and 6, the bushing 16 is positioned within the hole 14 of the plate 12 such that the bushing extends *within* the hole 14 *between* the proximal and distal surfaces 22, 24 such that a first end 32 lies adjacent the proximal surface 22 while a second end 34 lies adjacent the distal surface 24. *Id.* at col. 4, ll. 35 - 38. Thus, it is respectfully submitted that the bushing 16 is not elongated and does not extend through both the proximal and distal surfaces 22, 24.

Additionally, it is respectfully submitted that the bushing 16 includes neither a threaded portion nor a non-threaded portion, wherein the threaded portion extends from between 190° and 280° about a central axis. Specifically, the bushing 16 includes a radial slot 46 extending between an exterior surface 28 and an interior surface 30 at a predetermined dimension 58. *Id.* at col. 4, ll. 24 - 26 and 49 - 53; *see* Fig. 4. The interior surface 30 includes threads 38 that extend radially inwardly into a passageway 36. *Id.* at col. 4, ll. 60 - 63. It is respectfully submitted that the threads 38 extend about the entire interior surface 30. Bono does not show or suggest that the dimension 58 of the slot 46 would extend about 80° to 170° such that the threads extend from between 190° and 280° about the central axis. Rather, the dimension 58 of the slot 46 appears to be very small. The slot 46 only exists to allow the bushing 16 to be positioned within the hole 14 by radially compressing the bushing 16. Indeed, Bono specifically teaches that the bushing 16 is donut-shaped, suggesting that the bushing 16 is almost entirely enclosed. Thus, it is respectfully submitted that the threaded portion of the bushing 16 would extend over substantially more than 280° relative to a central axis of the bushing.

The Examiner further asserts that the slot 46 is comparable to the non-threaded portion of the recited claim. It is respectfully submitted that one of ordinary skill in the art would not

consider an empty space of the slot 46 as a non-threaded portion. Indeed, a "hole" would be understood by one of ordinary skill in the art as being completely surrounded by a surface such that a non-threaded portion of the hole would constitute an inner surface of the hole that does not include threading thereon. It is respectfully submitted that the slot 46 does not include any surface and thus cannot represent a non-threaded portion of the bushing 16.

Furthermore, it is respectfully submitted that although the hole 14 extends through the proximal and distal surfaces 22, 24 of the plate 12, the hole 14 is not elongated and does not include any threading along an inner surface thereof. Bono describes the hole 14 as being spherically shaped - i.e., not elongated - to accommodate the bushing 16. *Id.* at col. 4, ll. 1 - 3. Bono also does not show or suggest that the inner walls 26 of the hole 4 includes any threading. Indeed, Bono describes the bushing 16 as being press fit into the hole 14 and shows the inner wall 26 with no threading whatsoever. *Id.* at col. 4, ll. 24 - 26; *see* Fig. 3. Thus, it is respectfully submitted that hole 14 is not elongated and does not include a threading along any portion thereof.

Accordingly, it is respectfully submitted that Bono does not show or suggest "*at least one first type of hole, the first type of hole being elongated and extending through the upper and lower surfaces, and having a central axis and a longitudinal axis, wherein the first type of hole includes a threaded portion and a non-threaded portion, and the threaded portion extends through an angle of between about 190° and about 280° with respect to the central axis*," as recited in claim 1. Therefore, it is respectfully submitted that claim 1 is not anticipated by Bono and that the rejection of this claim should be withdrawn. Because claims 2 - 22, 24 - 26 depend from and include all of the limitations of claim 1, it is respectfully submitted that these claims are also allowable.

Similarly claim 27 recites a bone plate having a longitudinal axis and comprising "an upper surface" and "a lower surface" along with "*at least one first type of hole, the first type of*

hole being elongated and extending through the upper and lower surfaces, and having a central axis and a longitudinal axis, wherein the first type of hole includes a threaded portion and a non-threaded portion, and the threaded portion extends through an angle of between about 190° and about 280° with respect to the central axis" and "at least a second type of hole extending through the upper and lower surfaces, wherein the second type of hole is substantially non-threaded."

For at least the same reasons as discussed above in regard to claim 1, it is respectfully submitted that claim 27 is not anticipated by Bono and that the rejection of this claim should be withdrawn. Because claims 28 - 48 and 50 - 52 depend from and include all of the limitations of claim 27, it is respectfully submitted that these claims are also allowable.

Claim 66 recites a bone plate having a longitudinal axis and comprising "an upper surface" and "a lower surface" along with "at least one first type of hole extending through the upper and lower surfaces, and having a first central axis and being elongated in a direction substantially aligned with the longitudinal axis, wherein the first type of hole is non-threaded and has an outer perimeter, at least a portion of the outer perimeter tapering inward from the upper surface to the lower surface to form at least one ramp surface for engagement with a first screw head" and "*at least a second type of elongated hole extending through the upper and lower surfaces, the second type of hole having a second central axis and a longitudinal axis, wherein the second type of hole includes a threaded portion and a non-threaded portion, and the threaded portion extends through an angle of between about 190° and about 280° with respect to the second central axis.*"

For at least the same reason as discussed above in regard to claim 1, it is respectfully submitted that claim 66 is not anticipated by Bono and that the rejection of this claim should be withdrawn. Because claims 67 - 82 and 84 - 88 depend from and include all of the limitations of claim 66, it is respectfully submitted that these claims are also allowable.

Claim 89 recites a bone plate having a longitudinal axis and comprising "an upper surface" and "a lower surface" along with "*at least one first type of hole, the first type of hole being elongated and extending through the upper and lower surfaces, and having a central axis a longitudinal axis, wherein the first type of hole is at least partially threaded and the threaded portion of the hole tapers inward with respect to the central axis*" and "at least a second type of hole extending through the upper and lower surfaces, the second type of hole including an internal thread configured and dimensioned for engaging a threaded portion of a screw head.

As discussed above, it is respectfully submitted Bono does not show or suggest the bushing 16 "*at least one first type of hole, the first type of hole being elongated and extending through the upper and lower surfaces, and having a central axis a longitudinal axis, wherein the first type of hole is at least partially threaded*," as recited in claim 89. In addition, it is respectfully submitted that Bono does not show or suggest that the passageway 36 of the bushing 16 is tapered inward. Indeed, Fig. 3 shows the passageway as being consistent from the first end 32 of the bushing 16 to the distal end 34. Accordingly, it is respectfully submitted that Bono does not show or suggest "*at least one first type of hole, the first type of hole being elongated and extending through the upper and lower surfaces, and having a central axis a longitudinal axis, wherein the first type of hole is at least partially threaded and the threaded portion of the hole tapers inward with respect to the central axis*," as recited in claim 89.

Thus, it is respectfully submitted that claim 89 is not anticipated by Bono and that the rejection of this claim should be withdrawn. Because claims 90 - 113 depend from and include all of the limitations of claim 89, it is respectfully submitted that these claims are also allowable.

Similarly, claim 115 recites a bone plate having a longitudinal axis and comprising "an upper surface" and "a lower surface" along with "*at least one first type of hole, the first type of hole being elongated and extending through the upper and lower surfaces, and having a central axis and a longitudinal axis, wherein the first type of hole is at least partially threaded and the*

threaded portion of the hole tapers inward with respect to the central axis" and "at least a second type of hole extending through the upper and lower surfaces, wherein the second type of hole is substantially non-threaded."

For at least the same reasons as discussed above in regard to claims 1 and 89, it is respectfully submitted that claim 115 is not anticipated by Bono. Because claims 116 - 139 depend from and include all of the limitations of claim 115, it is respectfully submitted that these claims are also allowable.

Claim 141 recites a bone plate having a longitudinal axis and comprising "an upper surface" and "a lower surface" along with "*at least one first type of hole extending through the upper and lower surfaces, and having a first central axis and being elongated in a direction substantially aligned with the longitudinal axis, wherein the first type of hole is non-threaded and has an outer perimeter, at least a portion of the outer perimeter tapering inward from the upper surface to the lower surface to form at least one ramp surface for engagement with a first screw head*" and "at least a second type of elongated hole extending through the upper and lower surfaces, the second type of hole having a second central axis and a longitudinal axis, wherein the hole is at least partially threaded and the threaded portion of the hole tapers inward with respect to the second central axis."

For at least the same reasons as discussed above in regard to claims 1 and 89, it is respectfully submitted that claim 141 is not anticipated by Bono. Because claims 142 - 160, 162 and 163 depend from and include all of the limitations of claim 141, it is respectfully submitted that these claims are also allowable.

Claims 23, 49, 83, 114, 140 and 161 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Bono in view of U.S. Patent No. 3,668,972 to Allgower et al. ("Allgower"). *1/23/09 Office Action*, p. 7.

It is respectfully submitted that Allgower does not cure the deficiencies of Bono, as discussed above in regard to the § 102 rejection of claims 1, 27, 66, 89, 115 and 141. Since claims 23, 49, 83, 114, 140 and 161 depend from and include all of the limitations of claims 1, 27, 66, 89, 115 and 141, respectively, it is respectfully submitted that these claims are not rendered obvious by Bono in view of Allgower and that the rejection of these claims should be withdrawn.

In light of the foregoing, Applicants respectfully submit that all of the pending claims are in condition for allowance. All issues raised by the Examiner having been addressed, an early and favorable action on the merits is earnestly solicited.

Respectfully submitted,

Dated: April 23, 2009

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